Air Armament Center

Development, Acquisition, Testing, Deployment, and Sustainment of all air-delivered weapons

U.S. AIR FORCE

Readying Air Forces For Network Centric Weapons

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Integrity - Service - Excellence

LOCAAS Video

Hmmmm…

“Bummer of a birthmark, Hal”

Overview

Why Am I Here

Present my vision of

Network Centric Weapons

I'll Discuss

Meeting Network Challenges

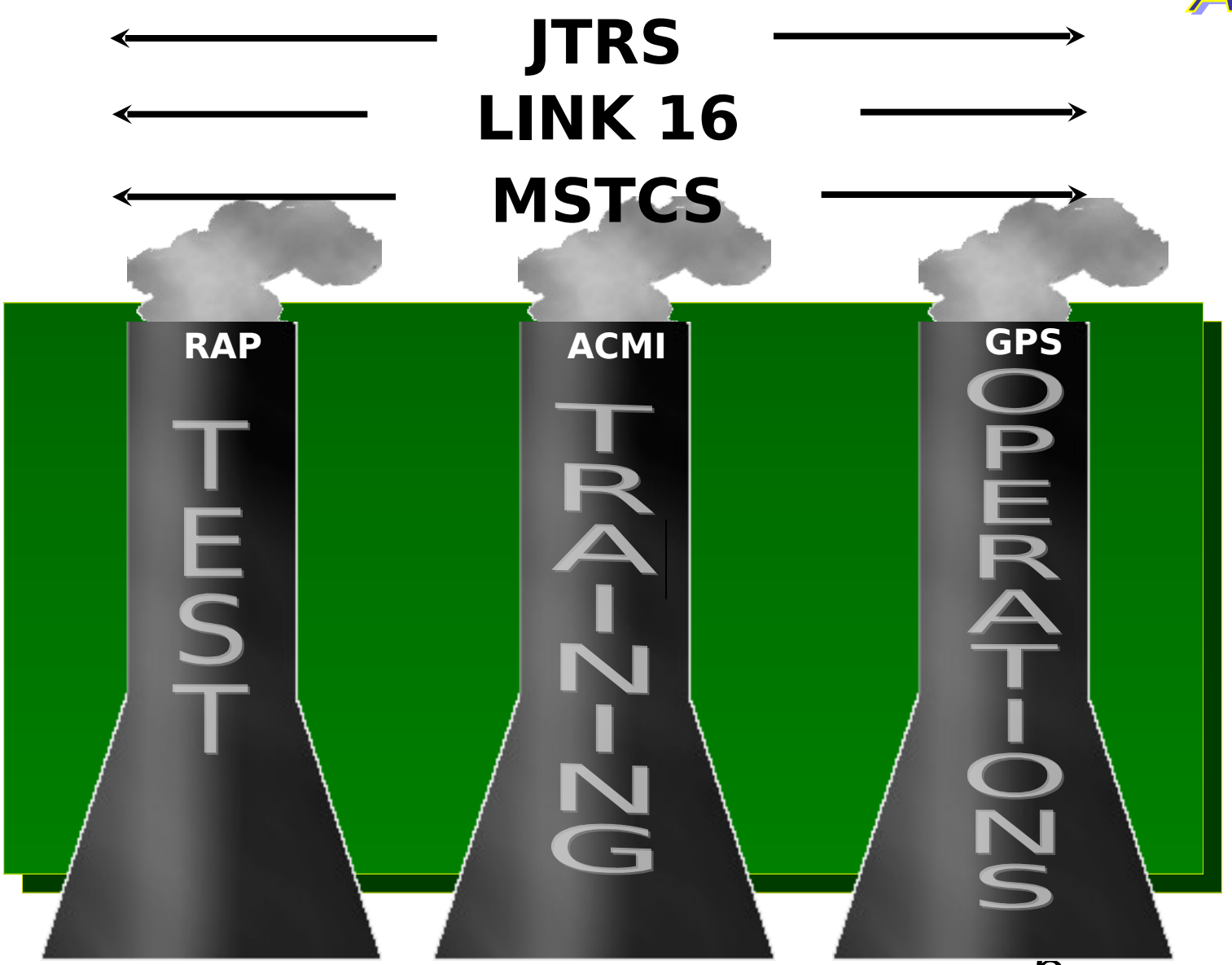
Potential Weapons Candidates

Impact on Ranges and Targets

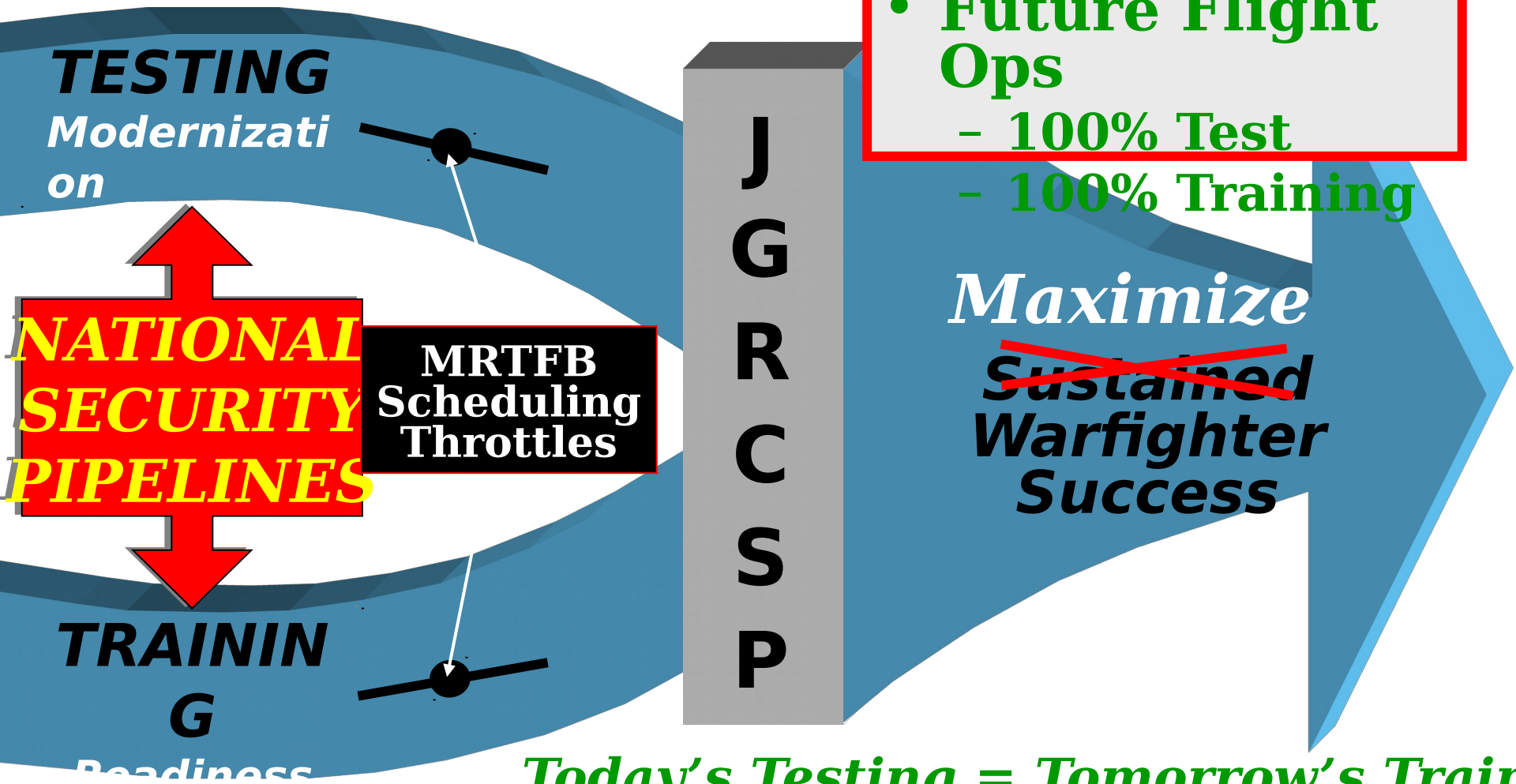
2002 Challenges

- **Mission Planning Systems**
  - Retarget In Flight Via Machine-to-Machine Interfaces
- **Rules of Engagement (ROE)**
  - Passive vs Active Control Measures
- **Collateral Damage** (Constant Consideration)
  - SDB (250lb class) w/greater precision
- **Need to Measure Effects Real-Time**
  - Capability to Loiter (ex. WASAAM) Persistent Are
- **Our Test and Training Ranges Must Transform to be able to Meet These Challenges**
  - Intersect w/JTRS

Current Stovepipes



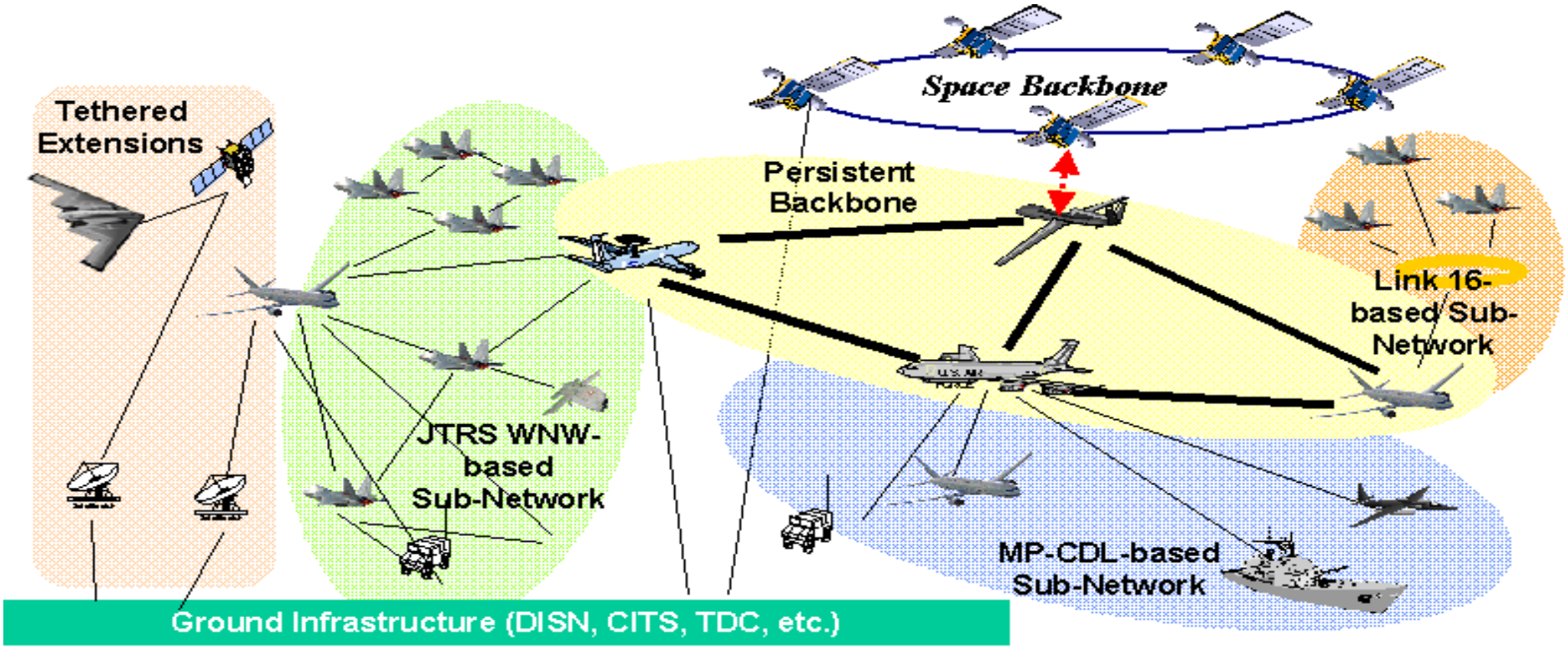
Strategy - “Equal Ts”



Today’s Testing = Tomorrow’s Train

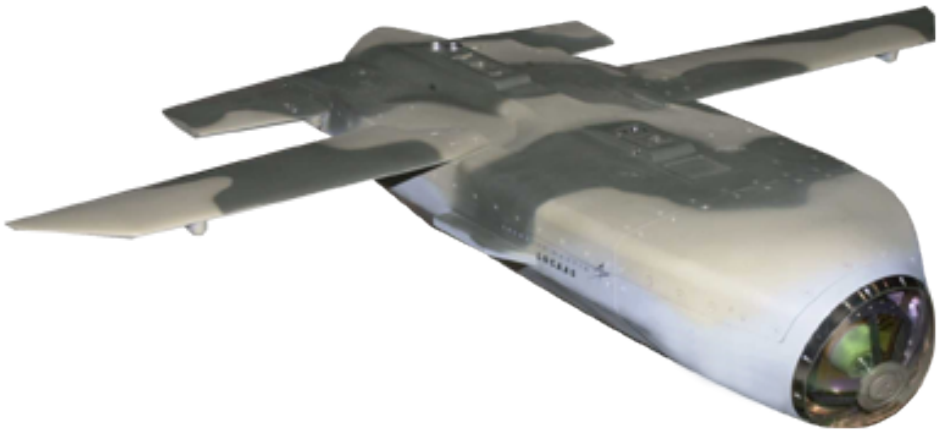
Testing + Training Capacity <

Networked Weapons



- Persistent backbone emulates characteristics of stable terrestrial networks
- Edge networks manage their own mobility
- Tethered extensions support en-route missions
- Built through evolution from current data link gateway initiatives
- Structured to evolve to ad-hoc mobile networking as technology matures

Network-Enabled Weapons



With Ability To:

Loiter
Search
Identify
Prosecute
Report

Potential Candidates

Current Inventory

Postulated

Candidates

RANGE SYSTEMS

P5 CTS
EnRAP

WEAPONS

JASSM JSOW
Tomahawk
Harpoon
ER Guided Munition
JDAM SDB
SLAM-ER
AARGM WCMD
WASAAMM
Hyper CM
AGM-130
NLOS-LS
Others

TARGETS

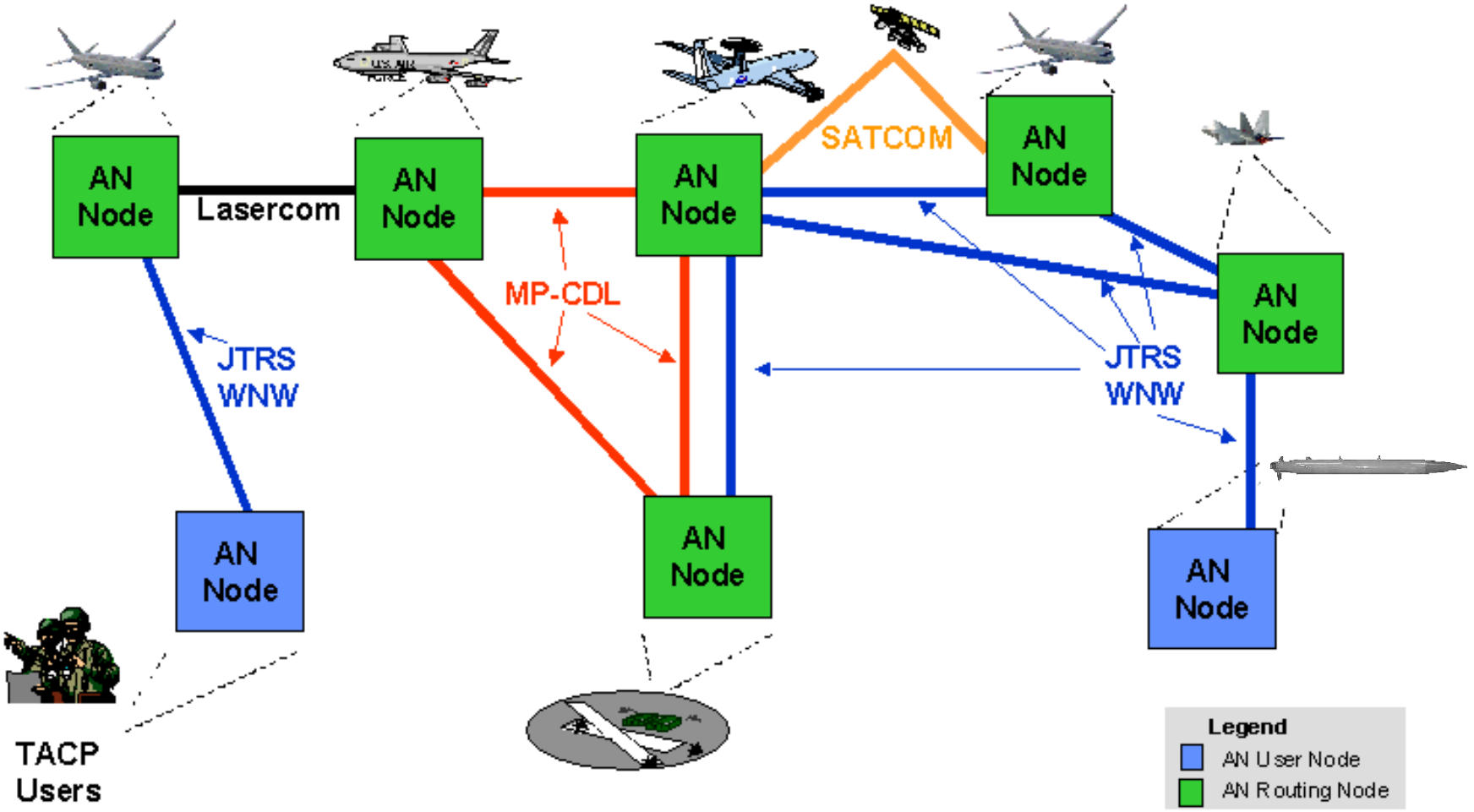
BQM-74
BQM-34
QF-4
AST

AAC Summit VI
March 2004

- Networked Operations Subpanel
  - *Networked Weapons Requirement (TDL-T CDD)*
  - *JTRS*

What If…

Internet Protocol-Centric Network



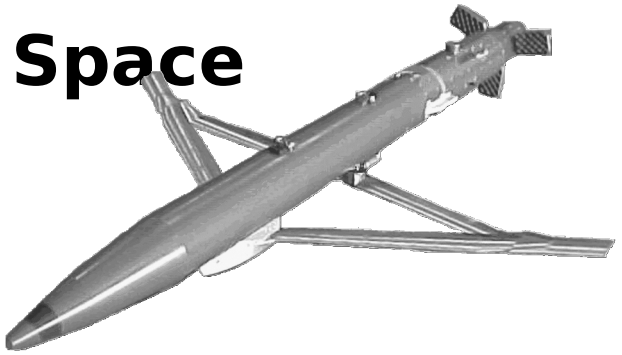
2003 Challenges

- **Defining and Assessing Desired Effects**
  - **Weapon Sends Back Battlefield Effect at Impact**
- **Service Interoperability**
  - **Operational/Training/Test Systems Use Common Data Interface**
- **Coalition Integration on a Weapon – Centric Network**

Today's Testing is
Tomorrow's Training is
Next Week's Operations

2003 Challenges (cont'd)

- Enhanced Range Application Program (EnRAP)
- Joint Tactical Radio System (JTRS)/Link 16 Integration
- Joint National Training Capability (JNTC)
- Weapons
  - Legacy, JASSM, SDB
- Low Cost Interface to Space



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Questions?

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